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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,536	12/12/2003	Donald J. White JR.	7858MD	9705

27752 7590 11/02/2006

THE PROCTER & GAMBLE COMPANY
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EXAMINER

ROBERTS, LEZAH

ART UNIT	PAPER NUMBER
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1614

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/734,536	Applicant(s) WHITE ET AL.	
	Examiner Lezah W. Roberts	Art Unit 1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

This Office Action is in response to the After Final Amendment filed August 28, 2006. All previous rejections have been withdrawn unless stated below.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims

Claim Rejections - 35 USC § 102 – Anticipation (Previous Rejection)

1) Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Zerby et al. (US 5,451,401). The rejection is still maintained in regards to claims 1-2 and 5-6.

Applicant argues the polyphosphonates of Zerby are not polymeric. This argument is persuasive. Applicant further argues although the reference does include carboxy-substituted polymers, the claim is specific to such carboxy-substituted polymers that are substantive to teeth and modify teeth to be hydrophilic and to decrease pellicle film thickness. There is no disclosure whatsoever in Zerby that CMC or any other carboxylated polymer would have these properties and functionality when used at levels from 1% to 35%. The only teaching in Zerby is to incorporate CMC at 0.3%, which is well known practice in the art for CMC and other cellulose derivatives as thickening

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agents in dental compositions. Nothing in Zerby teaches or suggests that CMC may be used in dental compositions for any other purpose. This argument is not persuasive.

In regards to CMC, the instant claims do not recite a concentration for the polymers incorporated into the oral compositions. If such an amount was recited in the claims, the reference incorporates Gaffar US 4,906,456 by reference, which teaches the amount of anionic polymers in the compositions ranges from 0 to 3% as well as other polymers that may be incorporated into the compositions (col. 3, lines 5-7). The toothpaste will clean the teeth and reduce pellicle film.

Claim Rejections - 35 USC § 102 – Anticipation (New Rejection)

1) Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Zakikhani et al. (US 5,980,776).

Zakikhani et al. disclose phosphonic acid polymers that may be used for applications such as dental cements and mouthwash chemicals. The polymers include copolymers comprising diphosphonic acids and acrylic acids (see Abstract). In regards to the properties of the instant claims the polyphosphonate when applied to the teeth forms a thin film on the teeth (see the obviousness section subsection 1, Bartels et al.). The compositions disclosed by the reference comprise substantially the same compounds as the compositions disclosed and claimed by the Applicant. The reference anticipates the claims insofar as it discloses an oral composition comprising a diphosphonic acid/acrylic acid copolymer.

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2) Claims 1-2 and 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaffar (US 4,906,456).

Gaffar discloses oral compositions comprising up to 3% of a synthetic polymer and a fluoride compound. The synthetic polymer is an anionic polymeric polycarboxylate. The fluoride compounds include stannous fluoride, which is incorporated at concentrations ranging up to 2% (col. col. 5, line 16-20). When the amount of a fluoride ion source sufficient to supply 25 ppm to 5,000 ppm of fluoride ions (col. 3, lines 3-4) is used it is calculated to yield about 75 to about 15630 ppm of Sn ions (the ppm of Sn values are calculated using the molecular formula of SnF_2 and the molecular weights of the individual atoms). The compositions disclosed by the reference comprise substantially the same compounds as the compositions disclosed and claimed by the Applicant. The reference anticipates the claims insofar as it discloses an oral composition comprising a polyelectrolyte and a stannous ion source.

3) Claims 1-2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Degenhardt et al. (US 4,877,603).

Degenhardt et al. disclose anti-calculus and anti-plaque oral care compositions containing geminal diphosphonate polymer anti-calculus agents and a pharmaceutically acceptable carrier. The reference recites it is common to have a water-soluble fluoride compound present in dentifrices in an amount sufficient to give a fluoride concentration of from about 0.0025% to about 5.0% by weight (19.3 ppm to 37,874 ppm of Sn ions), preferably from about 0.005% to about 2.0% by weight, to provide additional anticaries

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efficacy. Preferred fluorides include stannous fluoride. The reference anticipates the claims insofar as it discloses an oral composition comprising a polyphosphonate and a stannous ion source.

Claim Rejections - 35 USC § 103 (New Rejection)

1) Claims 1-2 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glandorf (US 6,187,295) in view of Bartels et al. (Journal of Dentistry).

Glandorf teaches composition for reducing the astringency of dentifrice compositions containing stannous. The dentifrice compositions comprise stannous ions preferably at levels ranging from 3,000 to 15,000 ppm (col. 30, lines 56), as recited in claim 6. Polyphosphates are incorporated into the dentifrice compositions to reduce the astringency as well as to reduce staining caused by the stannous compounds (col. 1, lines 1-18), as is recited in claim 5. The polyphosphates preferred for the disclosed composition are those having around four or more phosphate molecules, e.g., polyphosphates having 6, 13 and 21 repeating phosphate monomers (col. 4, lines 29-47). These polyphosphates are substantially the same as those described in the disclosure of the instant application (page 6). The reference differs from the instant claims insofar as it does not teach using a polyphosphonate copolymer in the compositions.

Bartels et al. disclose the advantage of using polyphosphonates over polyphosphates. Polyphosphonates are hydrolytically stable while polyphosphates are readily hydrolysed. The molecule can become attached several adsorption sites and as

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might be expected, the bonding between these molecules and the enamel surface can be very strong. A polyphosphonate comprising a fluoridating compound results in a thin film of loosely bound fluoride near the enamel surface. The polyphosphonates can be copolymerized with monomer like MMA, which could improve the adhesive bonding between the restorative acrylic material and the enamel. A study showed the use of these polymers increased the adhesiveness of the enamel and the restorative material (pages 1-2). The reference differs from the instant claims insofar as it does not teach the polymers or copolymers in oral compositions although it does disclose using them for dental applications.

It would have been obvious to one of ordinary skill in the art to have used polyphosphonates in the compositions of the primary reference motivated by the desire to provide a hydrolytically more stable composition in order for the active agents to stay in contact with the teeth longer, as disclosed by the secondary reference.

Obvious-Type Double Patenting

Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3 and 4 of U.S. Patent No. 6,821,507. Although the conflicting claims are not identical, they are not patentably distinct from each other because they both read on oral composition comprising a polymeric surface-active agent, stannous ions and a fluoride source. A terminal disclaimer was not filed with the amendment. The rejection is maintained.

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Claims 1-2 and 4-6 are rejected.

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lezah W. Roberts whose telephone number is 571-272-1071. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin H. Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lezah Roberts
Patent Examiner
Art Unit 1614



Frederick Krass
Primary Examiner
Art Unit 1614

